

AMENDMENTS TO THE CLAIMS

Please cancel claims 1-2, 26-81, 32, 35-37, 42, 46, 48, 52, 55-57, 62, 66-67, 104-105, 142-143 and 145 without prejudice or disclaimer of their underlying subject matter for the purposes of filing a continuation application.

Please amend the claims as follows.

1-13. (canceled)

14. (previously presented) A current drive circuit for supplying a drive current to a driven object, including:

a control line,

a signal line to which a signal current having a current level in accordance with information is supplied,

a receiving part for fetching the signal current from the signal line when the control line is selected,

a converting part for converting a current level of the fetched signal current to a voltage level and holding the same, and

a drive part for converting the held voltage signal to a current signal and outputting the drive current, wherein

the converting part includes a conversion use transistor provided with a control terminal, a first terminal, and a second terminal and a capacitor connected to the control terminal,

the drive part shares the conversion use transistor together with the converting part in a time division manner and

the drive part separates the conversion use transistor from the receiving part and uses the same for driving after the conversion of the signal current is completed and passes the drive current in a state where the held voltage level is applied to the gate of the conversion use transistor.

15. (original) A current drive circuit as set forth in claim 14, wherein the drive part has a controlling means for cutting off an unnecessary current via the conversion use transistor at times other than the time of drive.

16. (original) A current drive circuit as set forth in claim 15, wherein

the controlling means comprises a control use transistor provided with a control terminal, a first terminal, and a second terminal, the first terminal connected to the conversion use transistor, and the second terminal connected to the driven object and

said control use transistor becomes nonconductive and separates the conversion use transistor and the driven object in state when the driven object is not driven and switches to the conductive state when the driven object is driven.

17. (original) A current drive circuit as set forth in claim 14, wherein the drive part has a potential fixing means for fixing the potential of a drain with reference to a source of the

conversion use transistor so as to stabilize the current level of the drive current flowing through the conversion use transistor.

18-81. (canceled).

82. (previously presented) A display device comprising

a scanning line drive circuit for successively selecting scanning lines,

a data line drive circuit including a current source for generating a signal current having a current level in accordance with brightness information and successively supplying the same to data lines, and

a plurality of pixels arranged at intersecting portions of the scanning lines and the data lines and including current driven type light emitting elements emitting light by receiving the supply of the drive current, wherein

each pixel comprises

a receiving part for fetching the signal current from a data line when the scanning line is selected,

a converting part for converting a current level of the fetched signal current to a voltage level and holding the same, and

a drive part for passing a drive current having a current level in accordance with the held voltage level through the light emitting element,

wherein

the converting part includes a conversion use insulating gate type field effect transistor provided with a gate, a source, a drain, and a channel and a capacitor connected to the gate, the drive part shares the conversion use insulating gate type field effect transistor together with the converting part in a time division manner, and

the drive part separates the conversion use insulating gate type field effect transistor from the receiving part and uses the same for driving after the conversion of the signal current is completed and passes the drive current to the light emitting element through the channel in a state where the held voltage level is applied to the gate of the conversion use insulating gate type field effect transistor.

83. (original) A display device as set forth in claim 82, wherein the drive part comprises a controlling means for cutting off an unnecessary current flowing to the light emitting element via the conversion use insulating gate type field effect transistor at times other than the time of drive.

84. (original) A display device as set forth in claim 83, wherein the controlling means controls the voltage between terminals of two-terminal type light emitting element having a rectification function to cut off the unnecessary current.

85. (original) A display device as set forth in claim 83, wherein

the controlling means comprises a control use insulating gate type field effect transistor inserted between the conversion use insulating gate type field effect transistor and the light emitting element, and

the control use insulating gate type field effect transistor becomes nonconductive, in state and separates the conversion use insulating gate type field effect transistor and the light

emitting element when the light emitting element is not driven and switches to the conductive state when the light emitting element is driven.

86. (original) A display device as set forth in claim 83, wherein the controlling means controls a ratio between a time for cutting off the drive current when the light emitting element is not to be driven and placing the light emitting element in the non-light emitting state and a time of passing the drive current when the light emitting element is to be driven and placing the light emitting element in the light emitting and thereby to enable the control of the brightness of the pixel.

87. (original) A display device as set forth in claim 82, wherein the drive part comprises a potential fixing means for fixing the potential of the drain with reference to the source of the conversion use insulating gate type field effect transistor in order to stabilize the current level of the drive current flowing to the light emitting element through the conversion use insulating gate type field effect transistor.

88-119. (canceled)

120. (previously presented) A pixel circuit for driving a current-driven type light emitting element arranged at an intersecting portion of a data line supplying a signal current of a current level in accordance with brightness information and a scanning line supplying a selection pulse and emitting light by the drive current, comprising

a receiving part for fetching the signal current from said data line in response to a selection pulse from said scanning line,

a converting part for converting a current level of the fetched signal current to a voltage level and holding the same, and

a drive part for passing a drive current having a current level in accordance with the held voltage level through the light emitting element, wherein

the converting part includes a conversion use insulating gate type field effect transistor provided with a gate, a source, a drain, and a channel and a capacitor connected to the gate,

the drive part shares the conversion use insulating gate type field effect transistor together with the converting part in a time division manner, and

the drive part separates the conversion use insulating gate type field effect transistor from the receiving part and uses the same for driving after the conversion of the signal current is completed and passes the drive current to the light emitting element through the channel in a state where the held voltage level is applied to the gate of the conversion use insulating gate type field effect transistor.

121. (original) A pixel circuit as set forth in claim 120, wherein the drive part comprises a controlling means for cutting off an unnecessary current flowing to the light emitting element via the conversion use insulating gate type field effect transistor at times other than the time of drive.

122. (original) A pixel circuit as set forth in claim 121, wherein the controlling means controls the voltage between terminals of two-terminal type light emitting element having a rectification function to cut off the unnecessary current.

123. (original) A pixel circuit as set forth in claim 121, wherein

the controlling means comprises a control use insulating gate type field effect transistor inserted between the conversion use insulating gate type field effect transistor and the light emitting element, and

the control use insulating gate type field effect transistor becomes nonconductive in state and separates the conversion use insulating gate type field effect transistor and the light emitting element when the light emitting element is not driven and switches to the conductive state when the light emitting element is driven.

124. (original) A pixel circuit as set forth in claim 121, wherein the controlling means controls a ratio between a time for cutting off the drive current when the light emitting element is not to be driven and placing the light emitting element in the non-light emitting state and a time of passing the drive current when the light emitting element is to be driven and placing the light emitting element in the light emitting and thereby to enable the control of the brightness of the pixel.

125. (original) A pixel circuit as set forth in claim 120, wherein the drive part comprises a potential fixing means for fixing the potential of the drain with reference to the source of the conversion use insulating gate type field effect transistor in order to stabilize the current level of the drive current flowing to the light emitting element through the conversion use insulating gate type field effect transistor.

126-144. (canceled)

145. (original) A method of driving a light emitting element as set forth in claim 143, wherein:

said drive routines includes a routine using a drive use insulating gate type field effect transistor provided with a gate, a drain, a source, and a channel, and

in the routine, the drive use insulating gate type field effect transistor receives the voltage level held at the capacitor at its gate and passes a drive current having a current level in accordance with that through the light emitting element via the channel.

146-148. (canceled)

149. (previously presented) A method of driving a light emitting element for driving a current-driven type light emitting element arranged at an intersecting portion of a data line supplying a signal current of a current level in accordance with brightness information and a scanning line supplying a selection pulse and emitting light by the drive current, comprising

a receiving routine for fetching the signal current from said data line in response to a selection pulse from said scanning line,

a converting routine for converting a current level of the fetched signal current to a voltage level and holding the same, and

a drive routine for passing a drive current having a current level in accordance with the held voltage level through the light emitting element,

the converting routine includes a routine using a conversion use insulating gate type field effect transistor provided with a gate, a source, a drain, and a channel and a capacitor connected to the gate,

in the routine, the conversion use insulating gate type field effect transistor creates the voltage level converted by passing the fetched signal current through the channel in the receiving routine at the gate, and the capacitor holds voltage level created at the gate, and

the drive routine part shares the conversion use insulating gate type field effect transistor together with the converting part in a time division manner, and the drive routine separates the conversion use insulating gate type field effect transistor from the receiving part and uses the same for driving after the conversion of the signal current is completed and passes the drive current to the light emitting element through the channel in a state where the held voltage level is applied to the gate of the conversion use insulating gate type field effect transistor.

150. (original) A method of driving a light emitting element as set forth in claim 149, wherein the drive routine includes a control routine for cutting off an unnecessary current flowing to the light emitting element via the conversion use insulating gate type field effect transistor at times other than the time of drive.

151. (original) A method of driving a light emitting element as set forth in claim 150, wherein the control routine controls the voltage between terminals of two-terminal type light emitting element having a rectification function to cut off the unnecessary current.

152. (original) A method of driving a light emitting element as set forth in claim 150, wherein

the control routines comprises a routine using a control use insulating gate type field effect transistor inserted between the conversion use insulating gate type field effect transistor and the light emitting element, and

in the routine, the control use insulating gate type field effect transistor becomes nonconductive in state and separates the conversion use insulating gate type field effect transistor and the light emitting element when the light emitting element is not driven and switches to the conductive state when the light emitting element is driven.

153. (original) A method of driving a light emitting element as set forth in claim 150, wherein the control routine controls a ratio between a time for cutting off the drive current when the light emitting element is not to be driven and placing the light emitting element in the non-light emitting state and a time of passing the drive current when the light emitting element is to be driven and placing the light emitting element in the light emitting and thereby to enable the control of the brightness of the pixel.

154. (original) A method of driving a light emitting element as set forth in claim 150, wherein the drive routine includes a potential fixing routine for fixing the potential of the drain with reference to the source of the conversion use insulating gate type field effect transistor in order to stabilize the current level of the drive current flowing to the light emitting element through the conversion use insulating gate type field effect transistor.

155-165. (canceled)